

ABSTRACT

FABRICATION PROCESS FOR PREPARING RECORDING HEAD SLIDERS MADE FROM SILICON SUBSTRATES WITH SiO₂ OVERCOATS

A method for fabricating recording head sliders made from silicon substrates, is
5 described. A Silicon wafer with a SiO₂ overcoat is provided, and a layer of material
which is resistant to Deep Reactive Ion Etching (DRIE) is deposited on the SiO₂
overcoat. A patterned layer of material which is resistant to Reactive Ion Etching (RIE) is
deposited on the layer of DRIE-resistant material to form a primary mask. RIE is used
through the primary mask to pattern the SiO₂ overcoat layer and the layer of DRIE-
10 resistant material. The primary mask is then removing to expose the layer of DRIE-
resistant material which has now been patterned to form a secondary mask. DRIE is then
used through the secondary mask to cut the Si wafer into pieces. Finally, the secondary
mask is removed.